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IN THE CLAIMS

1. (currently amended) A method for making a thermal sprayed material surface infused or impregnated composite object comprising:

(a) preparing a pattern with a contour of a desired shape;

(b) applying a release agent layer on at least a portion of the pattern, wherein said release agent layer is applied to a thickness of between about 0.0001 and about 0.020 inches;

(c) applying a thermal spray material layer onto the release agent layer by a thermal spray method, said thermal spray method comprising controlling thermal spray parameters to produce an inner dense layer of thermal spray material on the release agent layer and a more porous outer layer as the thickness of the thermal spray material layer increases; wherein said thermal spray material is applied at a gun-to-substrate linear velocity of greater than ~~about~~ 0.5 meters/second or a power input factor from ~~about~~ 0.5 to ~~about~~ 45 watts/millimeter/second, said thermal spray material layer is applied to a thickness of between ~~about~~ 0.0001 and about 3 inches, said inner layer has a theoretical density of between about 95 and about 99.9 percent and comprises from about 5 to about ~~95~~50 percent of the thickness of said thermal spray material layer, and said outer layer has a porosity of between about 5 and about 95 percent and comprises from about 5 to about ~~95~~50 percent of the thickness of said thermal spray material layer;

(d) integrating the thermal spray material layer into a composite object by backing and infusing the thermal sprayed material layer with a resin; and

(e) separating the infused or impregnated composite coated spray material from the release agent coated pattern to produce said thermal sprayed material surface infused or impregnated composite object.

2. (previously presented) The method of claim 1 wherein step (d) is modified as follows: (d') integrating the thermal spray material layer into a composite object by backing the thermal sprayed material layer with fiber and infusing with a resin.

3. (original) The method of claim 2 where the thermal spray material is a metal.

4. (original) The method of claim 2 where the thermal spray material is a metal matrix ceramic composite.

5. (previously presented) The method of claim 3 wherein the metal is selected from steel, stainless steel, copper, tin, nickel, invar, chrome, tungsten, aluminum, zinc, alloys thereof or compounds thereof.

6. (previously presented) The method of claim 2 wherein the release agent is selected from epoxies, urethanes, acrylics or polyvinyl acetates.

7. (previously presented) The method of claim 2 wherein the fiber is selected from carbon fiber, glass fiber or nylon fiber, and the resin is selected from an epoxy or prepreg materials.

8. (previously presented) The method of claim 2 wherein in step (c) at least one layer of the thermal spray material selected from metals or psuedo alloys is applied to the release agent layer.

9. (Canceled).

10. (previously presented) The method of claim 2 wherein the inner dense layer of the thermal spray material in step (c) has a density of at least 95% theoretical density.

11. (original) The method of claim 2 wherein the entire spray material layer in step (c) has a porosity between about 5% and about 75%.

12. (Canceled).

13. (original) The method of claim 2 wherein after step (c), the following steps are added:

(c') encasing the periphery of the pattern with a seal;

(c") dispersing fiber and resin materials within the peripheral seal and onto the thermal spray material layer.

14. (previously presented) The method of claim 13 wherein in step (d) the impregnation or infusion of the resin into at least the outer layer of the deposited thermal spray material is done by using a vacuum force.

15. (previously presented) The method of claim 13 wherein in step (d), the impregnation or infusion of the resin into at least the outer layer of the deposited thermal spray material is done using a mechanical or hydraulic force.

16. (previously presented) The method of claim 2 wherein after step (e), the following steps are added:

(e') cleaning the pattern of contaminations; and

(e") repeating steps (a) through (e') at least once.

17. (original) The method of claim 16 wherein after step (c), the following steps are added:

(c') encasing the periphery of the pattern with a seal; and

(c'') dispersing fiber and resin materials within the peripheral seal and onto the thermal spray material layer.

18. (currently amended) A thermal sprayed material surface infused or impregnated composite object comprising a solid composite material of fiber and resin in which at least a portion of the resin composite material is infused or impregnated into the thermal sprayed material surface of a thermal spray material layer, said thermal spray material layer having an inner dense layer of thermal spray material and a more porous outer layer as the thickness of the thermal spray material layer increases; wherein said thermal spray material layer has a thickness of between ~~about~~ 0.0001 and about 3 inches, said inner layer has a theoretical density of between about 95 and about 99.9 percent and comprises from about 5 to about ~~95~~50 percent of the thickness of said thermal spray material layer, and said outer layer has a porosity of between about 5 and about 95 percent and comprises from about 5 to about ~~95~~50 percent of the thickness of said thermal spray material layer.

19. (previously presented) The thermal sprayed material surface infused or impregnated composite object of claim 18 wherein the porous portion of the thermal sprayed material surface has a theoretical density of between about 25% and about 95%.

20. (previously presented) A thermal sprayed material surface infused or impregnated composite object made in accordance with the method of claim 1.

21. (previously presented) A thermal sprayed material surface infused or impregnated composite object made in accordance with the method of claim 2.

22. (Canceled).

23. (Canceled).

24. (previously presented) The method of claim 1 wherein the more porous outer layer has a porosity of between about 25 and about 75 percent.